

Name _____

Mathematics 206a: Multivariable Calculus
Fall Semester 2005
David Haines
Quiz #12
September 26

Let $S = \{(x, y) \in \mathfrak{R}^2 \mid y \geq x^2\}$

A. Describe the boundary of S as a set and with a graph.

B. Describe the interior of S as a set and with a graph.

C. $\mathfrak{R}^2 \setminus S$ is an open set and contains the point $\mathbf{a} = (0, -0.1)$.
Give a value δ for which $B_\delta(\mathbf{a}) \subset \mathfrak{R}^2 \setminus S$.